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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/667,801

09/22/2003

Dan Winter

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28289

7590

12/13/2004

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EXAMINER

CHEN, SHIH CHAO

ART UNIT

PAPER NUMBER

2821

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/667,801

Applicant(s)

WINTER, DAN

Examiner

Shih-Chao Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 22-27 is/are rejected.
- 7) ☒ Claim(s) 13-21 and 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/19/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of claims 1-28 in the reply filed on Nov. 10, 2004 is acknowledged.

***Claim Objections***

2. Claim 1 is objected to because of the following informalities: in lines 4-5, "said first metallic sheet" should be changed to --said first electrically conductive sheet--. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuo et al. (U.S. Patent No. 5,294,938).

Regarding claim 1, Matsuo et al. teaches in figures 1-12 an antenna for transmitting a radio frequency signal, comprising: a first electrically conductive sheet [11]; a second electrically conductive sheet [20] spaced a first distance apart from the first electrically conductive sheet; and an axially extending leg [30] electrically connected to the first electrically conductive sheet and the second electrically conductive sheet, the axially extending leg being electrically conductive.

Regarding claim 2, Matsuo et al. teaches in figures 1-12 an antenna as claimed in claim 1, wherein the first electrically conductive sheet [11], the second electrically conductive sheet [20], and the axially extending leg [30] are made of metal.

Regarding claim 3, Matsuo et al. teaches in figures 1-12 an antenna as claimed in claim 1, wherein the first electrically conductive sheet [11], the second electrically conductive sheet [20], and the axially extending member [30] are made from a unitary sheet of metal (See Abstract).

5. Claims 1-2, 4-7, 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Shibano et al. (U.S. Patent No. 4, 123,758).

Regarding claim 1, Shibano et al. teaches in figures 1-7 an antenna for transmitting a radio frequency signal, comprising: a first electrically conductive sheet [12]; a second electrically conductive sheet [11] spaced a first distance apart from the first electrically conductive sheet; and an axially extending leg [15] electrically connected to the first electrically conductive sheet and the second electrically conductive sheet, the axially extending leg being electrically conductive.

Regarding claim 2, Shibano et al. teaches in figures 1-7 an antenna as claimed in claim 1, wherein the first electrically conductive sheet [12], the second electrically conductive sheet [11], and the axially extending leg [15] are made of metal.

Regarding claim 4, Shibano et al. teaches in figures 1-7 an antenna as claimed in claim 1, wherein the first electrically conductive sheet [12] has a first arcuate-shaped outer edge and the second electrically conductive sheet [11] has a second arcuate-

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shaped outer edge wherein the axially extending member [15] extends from the first arcuate-shaped outer edge to the second arcuate-shaped outer edge (See Fig. 5 (b)).

Regarding claim 5, Shibano et al. teaches in figures 1-7 an antenna as claimed in claim 4, wherein the first arcuate-shaped outer edge has a first radius extending from a first center point and the second arcuate-shaped outer edge has a second radius extending from a second center point.

Regarding claim 6, Shibano et al. teaches in figures 1-7 an antenna as claimed in claim 5, wherein the first center point and the second center point are contained on a centerline, and the first electrically conductive sheet [12] and the second electrically conductive sheet [11] are contained in a first plane and a second plane wherein the first plane is parallel to the second plane and the centerline is normal to the first plane and the second plane.

Regarding claim 7, Shibano et al. teaches in figures 1-7 an antenna as claimed in claim 6, wherein the first electrically conductive sheet [12] has a first surface area and the second electrically conductive sheet [11] has a second surface area, wherein the first surface area is greater than the second surface area.

Regarding claim 9, Shibano et al. teaches in figures 1-7 an antenna as claimed in claim 1, further comprising a cable [16] electrically coupled to the first electrically conductive sheet [12] and the second electrically conductive sheet [11].

Regarding claim 10, Shibano et al. teaches in figures 1-7 an antenna as claimed in claim 9, wherein the cable [16] is coaxial cable.

Regarding claim 11, Shibano et al. teaches in figures 1-7 an antenna as claimed in claim 1, wherein the first electrically conductive sheet [12] is spaced apart a distance from the second electrically conductive sheet [11] and is approximately equal to or a multiple of a wavelength distance of the frequency transmitted from the antenna.

Regarding claim 12, Shibano et al. teaches in figures 1-7 an antenna as claimed in claim 11, wherein the axially extending leg [15] has a length equal to the spaced apart distance.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shibano et al. (Cited above) in view of Matsumoto et al. (U.S. Patent No. 5,181,044).

Shibano et al. teaches every feature of the claimed invention in paragraph 5 except for the first electrically conductive sheet and the second electrically sheet include cut-out sections.

Matsumoto et al. teaches in figures 4-6 the first electrically conductive sheet [20] and the second electrically sheet [10] include cut-out sections.  
the respective rectilinear parts of these lines being disposed parallel to one another.

In view of the above statement, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the top load

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plate and the ground plate as shown in Shibano et al. by using cut-out sections as taught by Matsumoto in order to dispose a matching element (See Abstract).

8. Claims 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibano et al. (Cited above) in view of Reed et al. (U.S. Patent No. 6,304,231).

Shibano et al. teaches every feature of the claimed invention in paragraph 5 except for the mechanical meter; the frequency generator and the circuit board that includes the frequency generator.

Reed et al. teaches in figure 1 the mechanical meter [10]; the frequency generator [28] and the circuit board [20] includes the frequency generator.

In view of the above statement, it would have been obvious to one having ordinary skill in the art at the time the invention was made by using the mechanical meter; the frequency generator and the circuit board as taught by Reed et al. in order to the transceiver in module provides a signal representing the meter address and usage data (See col. 4, lines 11-15).

### ***Double Patenting***

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,819,292. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent and the application are claiming common subject matter, as follows: an antenna; a first electrically conductive sheet; a second electrically conductive sheet; an axially extending leg; a mechanical register (a register body).

#### ***Allowable Subject Matter***

10. Claims 13-21 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not disclose or suggest an antenna further comprising a metallic cup electrically coupled to the first electrically conductive sheet.

#### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-Chao Chen whose telephone number is (571) 272-1819. The examiner can normally be reached on Monday-Friday from 7 AM to 4:30 PM, First Fri. off.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Shih-Chao Chen*  
Shih-Chao Chen  
Primary Examiner  
Art Unit 2821

SXC  
December 6, 2004